

I Claim:

- 1003970-12200T
1. An apparatus for joining a first member to a second member via a threaded coupling member, said apparatus comprising:
- a first member having an interlocking structure disposed at an engaging region;
 - a threaded coupling member having an external thread set and having a complementary portion corresponding to a portion of the interlocking structure; and
 - a second member having an internal thread set adapted to engage a portion of the external thread set of the threaded coupling member and to receive a portion of the engaging region of the first member within the internal thread set to thereby connect the second member to the first member.
2. An apparatus according to claim 1, wherein the first member is a planar element.
3. An apparatus according to claim 1, wherein the interlocking structure is formed in a region adjacent an edge portion of the first member.
4. An apparatus according to claim 1, wherein the interlocking structure is more than one interlocking structure.
5. An apparatus according to claim 1, wherein said interlocking structure is a selected one from among the group including: a slot, a groove, an aperture, a recessed portion, a blind hole, a pin, a shank, a ridge feature, a tang, a serpentine feature, an elbow feature, and a lip feature.
- 6/ 8. An apparatus according to claim 1, wherein the threaded coupling member has a larger diameter dimension than a thickness dimension of the first member.
- 7/ 9. A method of connecting two members via a threaded coupling member, comprising the steps of:
- a. forming an interlocking structure in an engaging region of a first member;

- b. forming a threaded coupling member having a portion which is complementary to the interlocking structure;
- c. engaging the interlocking structure with the portion of a threaded coupling member;
- d. engaging a portion of the threaded coupling member and a portion of the first member with an internal thread set of a second member; and
- e. rotating the second member relative to the first member until the first member and the second member are securely connected.

10. A method according to claim 9, wherein the interlocking structure is a selected one from among the group including: a slot, a groove, an aperture, a recessed portion, a blind hole, an aperture, a pin, a shank, a ridge, a lip, an elongate ridge structure, an elbow-shaped feature, a serpentine feature, a tang, and a boss.

11. A method according to claim 9, wherein the step of forming the threaded coupling member includes the step of forming a plurality of components which comprise the threaded coupling member.

12. An apparatus for connecting two members together using a binding force provided by an internal thread set of one of the two members, said apparatus comprising:

a first member having a pair of opposing major surfaces, an engaging region on at least one of the major surfaces, and an interlocking structure disposed at said engaging region;

an elongate threaded coupling member having an external thread set and an engaging portion corresponding to the interlocking structure of the first member, said threaded coupling member removably engaging each of the pair of major surfaces of the first member and removably engaging the interlocking structure; and

a second member having an internal thread set sized to cooperate with the external thread set of the threaded coupling member, wherein when said external thread

set of the threaded coupling member is threadedly received within the internal thread set said threaded coupling member securely binds the first member to the second member.

Rule 1.126 11 13. An apparatus according to claim 12¹⁰, wherein elongate threaded coupling member is two longitudinal portions of a threaded shank each having an threaded exterior surface and a substantially flat interior surface.

Rule 1.126 12 14. An apparatus according to claim 12¹⁰, wherein the interlocking structure is a pair of pin members coupled to the substantially flat interior surface of one of the two longitudinal portions of the threaded shank.

Rule 1.126 11 15. An apparatus according to claim 12¹⁰, wherein the thickness of the first member is less than a diameter of the internal thread set.

Rule 1.126 11 16. An apparatus for joining two members via a threaded coupling member, said apparatus comprising:

a first member having an interlocking structure disposed proximate an edge;

an elongate threaded coupling member having an external thread set and an engaging portion corresponding to the interlocking structure of the first member, said threaded coupling member removably engaging the interlocking structure and extending away from the edge of the first member; and

a second member having an internal thread set sized to cooperate with the external thread set of the threaded coupling member, said internal thread set operatively receiving a portion of the external thread set of the threaded coupling member and a portion of the first member to securely bind the first member to the second member.

Rule 1.126 15 17. An apparatus according to claim 16¹⁴, wherein the interlocking structure is more than one interlocking structure.

Rule 1.126 16 18. An apparatus according to claim 16¹⁴, wherein the elongate threaded coupling member includes a partial thread set having a first arcuate thread portion and a second, generally opposite, substantially smaller arcuate thread portion.

19. An apparatus according to claim 18, wherein the second arcuate thread portion is sized to pass through an aperture of the first member.

20. An apparatus for joining two members via a threaded coupling member, said apparatus comprising:

a first member having an portion extending from an edge and defining an interlocking structure;

an elongate threaded coupling member having an external thread set and an engaging portion corresponding to the interlocking structure of the first member, said threaded coupling member removably engaging the interlocking structure;

a second member having an internal thread set sized to cooperate with the external thread set of the threaded coupling member, said internal thread set operatively receiving a portion of the external thread set of the threaded coupling member and a portion of the first member to securely bind the first member to the second member.

21. An apparatus according to claim 20, wherein the elongate threaded coupling member includes a removed channel portion sized to receive an elbow-shaped portion of the interlocking structure.